ATTACHMENT A

ENGINEERING STATEMENT
And
EXHIBITS
IN SUPPORT of REPLY COMMENTS
Filed By
NPR PHOENIX, L.L.C.
In
ASH FORK, ARIZONA
MB Docket # 02-12
RM-10356

SEPTEMBER 2002

ABSTRACT:

The engineering exhibits found herein were prepared by the firm of **KLEIN BROADCAST ENGINEERING, L.L.C.**, in support of REPLY COMMENTS filed with the Federal Communications Commission by NPR Phoenix, L.L.C. (NPR) in MB Docket #02-12 / RM-10356.

The geographic coordinates found in this engineering statement are from the North American Datum 1927 (NAD27). The reference geographic coordinates for the communities specified herein were obtained from The U.S. Census Bureau, Gazetteer of "Places" in the United States. This database may be found on the Internet at: http://ftp.census.gov/geo/www/gazeteer/places.html.

ENGINEERING STATEMENT:

SELIGMAN , ARIZONA

The Commission's Public Notice, Report No. 2571, has accepted for Rulemaking NPR's Counterproposal, in this docket, which suggested, the substitution of any of several FM Channels for the current FM Channel 277 Class A at Seligman, Arizona.

The Public Notice suggests the allotment of FM Channel 267 Class A in place of the current channel. However, that suggestion would conflict with another Counterproposal filed with the Commission by NPR in the Cameron, Arizona proceeding (MM Docket No. 02-73 / RM-10400) That Counterproposal requested the allotment of FM Channel 267 Class A at Ash Fork, Arizona.

NPR suggests the use of FM Channel 227 Class A at Seligman, Arizona, using the existing licensed transmitter site of FM Broadcast Station KZKE(FM) as the allotment reference site coordinates, listed in the Commission's CDBS FM Database as:

NL: 35-19-26 / WL: 112-45-55

FM Channel 227 Class A may be allotted to the Community of Seligman, Arizona in compliance with Section 73.207 of the Rules and Regulations of the Federal Communications Commission and would eliminate the conflict with the proposed allotment of FM Channel 267 Class A at Ash Fork, Arizona and would allow the Commission to harmoniously resolve **both** the Ash Fork, Arizona proceeding (MM-Docket No. 02-12 / RM-10356) and the Cameron, Arizona proceeding as proposed by NPR in Comments and Reply Comments filed in **both** proceedings.

The 70dBu contour of a maximum Class A facility extends 16.6 kilometers distant from the transmitter site. Given the location of station KZKE's transmitter site with respect to the Community of Seligman, Arizona, this proposed allotment will provide the entire Principal Community of Seligman, Arizona, with the required "City Grade" 70dBu service, in compliance with Section 73.315 of the Rules and Regulations of the Federal Communications Commission, just as station KZKE(FM) presently does. Thus, FM Channel 227 Class A is well suited for use as a replacement channel for FM Broadcast Station KZKE(FM) at Seligman, Arizona. Engineering Exhibit E-1 is a complete FM Channel Spacing Study that shows the proposed allotment can be made in accordance with Section 73.207 of the Rules and Regulations of the Federal Communications Commission.

BEAVER , UTAH

The Commission's Public Notice, has also accepted for rule making as a Counterproposal, in this (Ash Fork, Arizona) proceeding, the request of Deborah Comley, that the Commission allot FM Channel 221 Class A at Beaver, Utah. This request is receiving treatment as a Counterproposal in this proceeding. This request is in conflict with the proposal of Spectrum Scan, L.L.C. to allot FM Channel 221 Class C at Cedar City, Utah, as a substitute channel for Fm Broadcast Station KXFF(FM), now on FM Channel 223 Class C. This conflict may be resolved so that **both** requests may be accommodated by the Commission with the allotment of FM Channel 246 Class A at Beaver, Utah and FM Channel 221 Class C at Cedar City, Utah, in place of the current FM Channel 223 Class C. Thereby accommodating the request for a new Class A allotment at Beaver, Utah. FM Channel 246 Class A may be allotted to the Proposed Principal Community of Beaver, Utah, as the requested allotment reference coordinates requested for FM Channel 221 Class A at Beaver, Utah. Those reference coordinates are:

NL: 38-16-37 / WL: 112-38-25

Engineering Exhibit E-2 is a complete FM Channel Spacing Study that demonstrates the allotment of FM Channel 246 Class A at Beaver, Utah, using the above captioned reference coordinates complies with Section 73.207 of the Rules and Regulations of the Federal Communications Commission.

NPR has performed a complete FM Band Study at Beaver, Utah. Furthermore, as a result of running this study NPR has determined no less than fourteen (14) Class A Channels that may be allotted to the Community of Beaver, Utah. In addition to FM Channel 246 Class A, here is a listing of FM Class A Channels that qualify under Section 73.207 of the Commission's Rules from the Reference Site Coordinates specified herein in order of "clearance" (most clearance listed first). FM Channel: 290A, 294A, 288A, 289A, 292A, 283A, 282A, 268A, 264A, 291A, 293A, 259A, 284A and 225A.

BEAVER , UTAH cont'd

Engineering Exhibits E-3, E-4, E-5 are Section 73.207 FM Channel Spacing Studies that have been prepared in exhibit form for several of the listed available Class A channels, these channels were picked at random from the above list for Beaver, Utah. Compliance with Section 73.315 of the Commission's Rules is assured as the 70dBu City Grade Contour of a maximum facility Class A FM Station extends 16.6 kilometers from the station's transmitter site. The requested allotment reference coordinates are within the City Limits of Beaver, Utah and would a 70dBu City Grade Contour that would fully encompass the entire proposed Principal Community of Beaver, Utah.

LAKE MONTEZUMA , ARIZONA

The Commission's Public Notice, has also accepted for rule making as a Counterproposal, in this (Ash Fork, Arizona) proceeding the request of Sierra H Broadcasting (Sierra) the Commission allot FM Channel 282 Class C at Lake Montezuma, Arizona. This request is receiving treatment as a Counterproposal proceeding. This request is in conflict with the proposal of NPR to allot FM Channel 280 Class C1 at Gilbert, Arizona, as an upgrade to Class C1 for FM Broadcast Station KEDJ(FM). In a previous filing with the Commission, NPR called the Commission's attention to this fact and requested the Commission move the reference site requested by Sierra for its proposal to allot FM Channel 282 C at Lake Montezuma, Arizona. NPR has undertaken further study of the Sierra allotment request and change in Principal Community from Payson, Arizona to Lake Montezuma, Arizona for Sierra's FM Broadcast Station KAJM(FM). Upon completion of the study NPR finds the rule making request for channel 282 Class C at Lake Montezuma, Arizona is fatally flawed and should have never been accepted by the Commission.

LAKE MONTEZUMA , ARIZONA cont'd

NPR Engineering Exhibit E-28, an Area To Locate Study prepared under Section 73.207 of the Commission's Rules. This exhibit also shows the boundaries between the Coconino National Forest and the Tonto National Forest. The percentage of the Area To Locate within the boundary of the Coconino National Forest is 22.24% of the total Area To Locate available to Sierra. The percentage of the total Area To Locate that falls within the boundary of the Tonto National Forest is 74.34%. Another 0.6% falls within the boundary of the Matazel Wilderness Area, an officially designated nature and wildlife preserve. This totals 97.36 percent of the Area To Locate falling within these jurisdictions as far as Antenna Support Structure or Tower construction is concerned. There is **NO** tower construction allowed in the Matazel Wilderness Area. **Both** the Coconino National Forest and the Tonto National Forest have long standing policies that do **NOT** permit any **Lighted** towers in their respective forests at fall in the Area To Locate for Sierra's request. So we have now **eliminated** 97.36 percent of the land area within the Area To Locate as being unavailable for towers at all or only permitting towers of 199 feet above ground level or less (i.e. unlighted towers). This leaves 2.64 percent of the total land area that might be available to Sierra to construct a tower greater than 199 feet above the ground in height. The total land area within the Area To Locate is 122.38 square kilometers, this leaves 3.231 square kilometers designated private land. The existing private land parcels are predominantly along state highways and have already been developed by commercial interests. A tower of say 1000 feet above ground level would require approximately 65 acres of land area for construction and would require high intensity strobe lighting. NPR stresses this entire area within the Area To Locate and surrounds is very environmentally sensitive to protection of bird flyways and the nesting habitat of the Spotted Owl. Documentation of these facts are a matter of record with the U.S. Forest Service and the Bureau of Land Management. And even tower of 1000 feet above ground level is still not of sufficient height to provide an unobstructed "Line of Sight" path to the proposed Principal Community of Lake Montezuma, Arizona.

LAKE MONTEZUMA , ARIZONA cont'd

This writer calculates it would require the construction of a tower in excess of 1,500 feet above ground level to obtain and unobstructed "Line of Sight" path from only a few of the sites that were studied. The land requirement for a 1,500 foot tower is in excess of 80 acres and in an environmentally sensitive area such as the land in and surrounding the Area To Locate is prohibitive. Should the Commission entertain Sierra's proposal any further , it should first require Sierra to demonstrate that a tower of sufficient height could be built to provide a "City Grade" 70dBu service over the proposed Principal Community of Lake Montezuma, Arizona and provide an unobstructed "Line of Sight" path to same. The lack of "City Grade" service and "Line of Sight" coverage is true for the proposed Sierra reference site, the NPR reference site and the presently licensed site of FM Broadcast Station KAJM(FM) at Payson, Arizona. If such a tower was proposed **anywhere** in or near this area the public outcry would be enormous and predominately against the construction of such a structure.

The NPR allotment, coverage and terrain study took into consideration that the antenna radiation center of the Sierra proposal for Lake Montezuma, Arizona would be limited to 50 meters above the ground. The study also assumed a receive antenna at 9 meters above the ground. This study calculated the terrain profiles from 20 (twenty) evenly distributed sites within the Area To Locate. These 20 sites are accurately plotted on a map as contained herein and marked Engineering Exhibit E-26. Exhibits E-6 through E-25 are the terrain plots between the various evenly distributed locations within the Area To Locate and the proposed Principal Community of Lake Montezuma, Arizona and includes the Longley-Rice calculated signal levels present over the proposed Principal Community. The formula used to predict these received signal levels as been adjusted with an additional minus -5.0 dB as would be applied when analyzed by the FCC Office of Engineering and Technology. **Not ONE** of these sites studied provided the proposed Principal Community, Lake Montezuma, Arizona with the requisite "City Grade" 70dBu service, as required in Section 73.315 of the Rules and Regulations of the Federal Communications Commission.

LAKE MONTEZUMA , ARIZONA cont'd

In addition **not ONE** of these locations had an unobstructed "line of sight" path to the proposed Principal Community, Lake Montezuma, Arizona. Section 73.315 of the Commission's Rules requires not only 70dBu service to the "entire" (Section 73.315[a]) of the Principal Community but **ALSO** requires "The location of the antenna should be so chosen that LINE- OF- SIGHT can be obtained from the antenna over the principal city or cities to be served; in **NO** event should there be a major terrain obstruction in this path." (Section 73.315[b])

Additionally, NPR would like to call attention to fact that already surround the presently licensed facility of Sierra's FM Broadcast Station KAJM(FM). The existing current license document (FCC File Number BMLH-19981231KA) lists the height above ground as 60 meters for the antenna support structure at the station's existing transmitter location, this is less than 200 feet above ground level. Also on this document it is specified the structure in **NOT** required to be lighted or painted. (Engineering Exhibit E-28 is a copy of the FM Broadcast Station License Document and is included herein.) This complies with the Coconino National Forest Policies. Sierra is also the permittee of an FM Broadcast Station Construction Permit (FCC File Number BPH-20000314ABX) That permits the station to increase HAAT to 600 meters by increasing the height above ground level of the radiation center of the antenna employed to 323 meters above the ground at station KAJM(FM)'s existing licensed site. (A copy of this FCC Construction Permit is included herein and marked Engineering Exhibit E-29.) This would require an antenna support structure or tower is excess of 324 meters (1,063 feet AGL) above ground level when the height of such a tower is restricted to 60 meters above ground level. Since the above captioned permit has been valid and issued for almost 2 years one must ask why the construction of this facility has not even been started as of this date. The plain and simple reason no construction has started on the facility captioned above, is that the permits to permit the construction of such a tall structure have yet to be obtained successfully by the permittee.

LAKE MONTEZUMA , ARIZONA cont'd

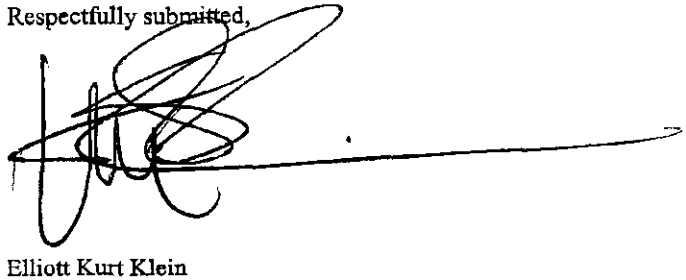
The conclusion one must draw from consideration of the facts presented herein is the requested allotment of FM Channel 282 Class C at Lake Montezuma, Arizona, was defective at the time it was filed with the Commission and should be given no further consideration.

If in the event the Commission does allow Sierra H Broadcasting's Counterproposal to proceed through the rule making process, NPR respectfully requests the Commission change the reference site coordinates to that of the existing licensed site for station KAJM(FM) as the reference coordinates for the requested allotment of FM Channel 282 Class C at Lake Montezuma, Arizona, there by accommodating the requests of **both** NPR and Sierra. NPR has previously submitted an FM Channel Spacing Study based on Section 73.207 of the Commission's Rules at the presently licensed site coordinates for station KAJM(FM), they are listed in the Commission's CDBS FM Database as:

NL: 34-25-48 / WL: 111-30-16

The above captioned coordinates for a reference site for the Sierra requested allotment of FM Channel 282 Class C at Lake Montezuma, Arizona, are compliant with the requirements of Section 73.207 of the Rules and Regulations of the Federal Communications Commission. A copy of this Spacing Study is included herein and is marker Engineering Exhibit E-30.

Respectfully submitted,



Elliott Kurt Klein
Consulting Broadcast Engineer.
KLEIN BROADCAST ENGINEERING, L.L.C.

09 September 2002

ENGINEERING EXHIBITS

E-1 through E-30

Follows this page:

ENGINEERING EXHIBIT E-1

Comments: ENGINEERING EXHIBIT E-1 FM CHANNEL SPACING STUDY under SECTION 73.207 for FM CHANNEL 227 CLASS A at SELIGMAN, AZ as a replacement channel for KZKE.

Description: ENGINEERING EXHIBIT E-1

Callsign	Latitude	Longitude	City	State	Service	Channel	Class	Status	Min Sep	Clearance	ERP	HAAT	Adjacency	Distance	Bearing
	N35:19:26	W112:45:55	SELIGMAN	AZ	FM	227 : 93.3 MHz	A	ADD	115	-115.00	0.00	0	Primary	0.00	000
KDKB	N33:20:04	W112:03:36	MESA	AZ	FM	227 : 93.3 MHz	C	LIC	226	4.03	96.00	469	Primary	230.03	164
	N35:13:24	W112:36:56	ASH FORK	AZ	FM	280 : 103.9 MHz	A	ADD	10	7.61	0.00	0	IF	17.61	129
KADD	N35:01:58	W114:21:57	LAUGHLIN	NV	FM	228 : 93.5 MHz	C1	LIC	133	16.33	2.75	576	1st Adj	149.33	258
KMGN	N34:58:08	W111:30:28	FLAGSTAFF	AZ	FM	230 : 93.9 MHz	C	LIC	95	26.17	96.00	460	3rd Adj	121.17	109
KAFF-FM	N34:58:07	W111:30:24	FLAGSTAFF	AZ	FM	225 : 92.9 MHz	C	APP	95	26.28	98.00	486	2nd Adj	121.28	109
KAFF-FM	N34:58:07	W111:30:24	FLAGSTAFF	AZ	FM	225 : 92.9 MHz	C	LIC	95	26.28	98.00	461	2nd Adj	121.28	109
KXAZ	N37:00:42	W111:40:48	PAGE	AZ	FM	227 : 93.3 MHz	C2	LIC	166	45.20	12.50	281	Primary	211.20	028
KRCY	N35:39:07	W114:18:42	DOLAN SPRINGS	AZ	FM	224 : 92.7 MHz	C	CP	95	49.97	100.00	541	3rd Adj	144.97	285
KFPB	N34:42:52	W112:31:33	CHINO VALLEY	AZ	FM	280 : 103.9 MHz	C3	LIC	12	59.05	8.10	173	IF	71.05	162
	N36:50:52	W114:28:37	LOGANDALE	NV	FM	228 : 93.5 MHz	C	ADD	165	63.82	0.00	0	1st Adj	228.82	318
KRCY	N35:01:58	W114:21:57	KINGMAN	AZ	FM	224 : 92.7 MHz	C1	LIC	75	74.33	17.00	576	3rd Adj	149.33	258
KSNN	N36:50:49	W113:29:28	ST. GEORGE	UT	FM	228 : 93.5 MHz	C2	LIC	106	75.20	2.40	577	1st Adj	181.20	339
KQOL-FM	N35:58:02	W115:30:06	LAS VEGAS	NV	FM	226 : 93.1 MHz	C	LIC	165	92.90	24.00	1141	1st Adj	257.90	286
K228DF	N34:29:20	W112:32:15	PRESCOTT	AZ	FM	228 : 93.5 MHz		LIC	0	94.94	0.08	486	1st Adj	94.94	167

Callsign	Latitude	Longitude	City	State	Service	Channel	Class	Status	Min Sep	Clearance	ERP	HAAT	Adjacency	Distance	Bearing
	N38:16:37	W112:38:25	BEAVER	UT	FM	246 : 97.1 MHz	A	ADD	115	-115.00	0.00	0	Primary	0.00	000
	N38:34:02	W112:16:42	SALINA	UT	FM	300 : 107.9 MHz	C	ADD	29	16.14	0.00	0	IF	45.14	044
	N37:50:30	W112:49:30	PAROWAN	UT	FM	300 : 107.9 MHz	C2	ADD	15	35.96	0.00	0	IF	50.96	199
KISN-FM	N40:39:34	W112:12:05	SALT LAKE CITY	UT	FM	246 : 97.1 MHz	C	CP	226	41.19	25.00	1140	Primary	267.19	008
KISN-FM	N40:39:35	W112:12:05	SALT LAKE CITY	UT	FM	246 : 97.1 MHz	C	LIC	226	41.22	30.00	1113	Primary	267.22	008
KLGL	N39:19:23	W111:46:23	RICHFIELD	UT	FM	248 : 97.5 MHz	C	LIC	95	43.42	66.00	695	2nd Adj	138.42	033
KLGL	N39:19:17	W111:46:11	RICHFIELD	UT	FM	248 : 97.5 MHz	C	CP	95	43.43	56.10	718	2nd Adj	138.43	033
K244DC	N37:49:19	W112:27:28	PANGUITCH	UT	FM	244 : 96.7 MHz		LIC	0	52.98	0.05	-156	2nd Adj	52.98	162
K243AG	N37:50:32	W112:58:10	PAROWAN	UT	FM	243 : 96.5 MHz		LIC	0	56.24	0.07	199	3rd Adj	56.24	211
K249CN	N38:32:31	W112:04:21	RURAL GARFIELD, E	UT	FM	249 : 97.7 MHz		LIC	0	57.66	0.01	0	3rd Adj	57.66	059
KCFM	N39:20:12	W111:27:06	LEVAN	UT	FM	244 : 96.7 MHz	C	LIC	95	61.52	67.00	585	2nd Adj	156.52	041
K247AG	N37:38:18	W113:01:49	CEDAR CITY	UT	FM	247 : 97.3 MHz		LIC	0	78.73	0.01	0	1st Adj	78.73	206
	N39:33:32	W111:46:55	LEVAN	UT	FM	244 : 96.7 MHz	C1	RSV	75	85.61	0.00	0	2nd Adj	160.61	028
K244CR	N37:45:21	W111:52:27	RURAL GARFIELD C	UT	FM	244 : 96.7 MHz		LIC	0	88.72	0.02	759	2nd Adj	88.72	131
KCYN	N38:31:37	W109:18:21	MOAB	UT	FM	246 : 97.1 MHz	C1	APP	200	92.59	29.00	394	Primary	292.59	085
KCYN	N38:31:38	W109:17:12	MOAB	UT	FM	246 : 97.1 MHz	C1	CP M	200	94.26	26.50	489	Primary	294.26	085

Callsign	Latitude	Longitude	City	State	Service	Channel	Class	Status	Min Sep	Clearance	ERP	HAAT	Adjacency	Distance	Bearing
*K296AP	N38:27:04	W112:39:15	BEAVER	UT	FM	296 : 107.1 MHz		LIC	0	19.37	0.22	326	2nd Adj	19.37	356
*K292AE	N38:12:49	W112:14:23	KINGSTON	UT	FM	292 : 106.3 MHz		LIC	0	35.76	0.01	-222	2nd Adj	35.76	101
*K296DN	N37:49:19	W112:27:28	PANGUITCH	UT	FM	296 : 107.1 MHz		LIC	0	52.98	0.05	-156	2nd Adj	52.98	162
K240BZ	N38:32:12	W112:04:22	RURAL GARFIELD, E	UT	FM	240 : 95.9 MHz		LIC	0	57.34	0.01	0	IF	57.34	060
	N38:51:12	W114:18:06	BAKER	NV	FM	296 : 107.1 MHz	C	ADD	95	63.31	0.00	0	2nd Adj	158.31	294
K296AC	N38:38:04	W112:03:33	RICHFIELD-SEVIER	UT	FM	296 : 107.1 MHz		LIC	0	64.40	0.01	448	2nd Adj	64.40	052
K292AQ	N38:38:04	W112:03:33	RICHFIELD & MONR	UT	FM	292 : 106.3 MHz		LIC	0	64.40	0.05	449	2nd Adj	64.40	052
KZNZ	N37:05:41	W113:11:06	COLORADO CITY	AZ	FM	297 : 107.3 MHz	C1	CP	75	64.73	34.00	347	3rd Adj	139.73	200
KOSY-FM	N40:16:50	W111:56:06	SPANISH FORK	UT	FM	293 : 106.5 MHz	C	LIC	165	65.61	45.00	841	1st Adj	230.61	015
K296AA	N38:28:20	W111:48:29	WAYNE COUNTY	UT	FM	296 : 107.1 MHz		LIC	0	75.89	0.01	212	2nd Adj	75.89	073
K296AR	N37:30:25	W112:30:37	LONG VALLEY JUNC	UT	FM	296 : 107.1 MHz		LIC	0	86.23	0.03	54	2nd Adj	86.23	172

* FM Translator Station NOT Primary Protected Service

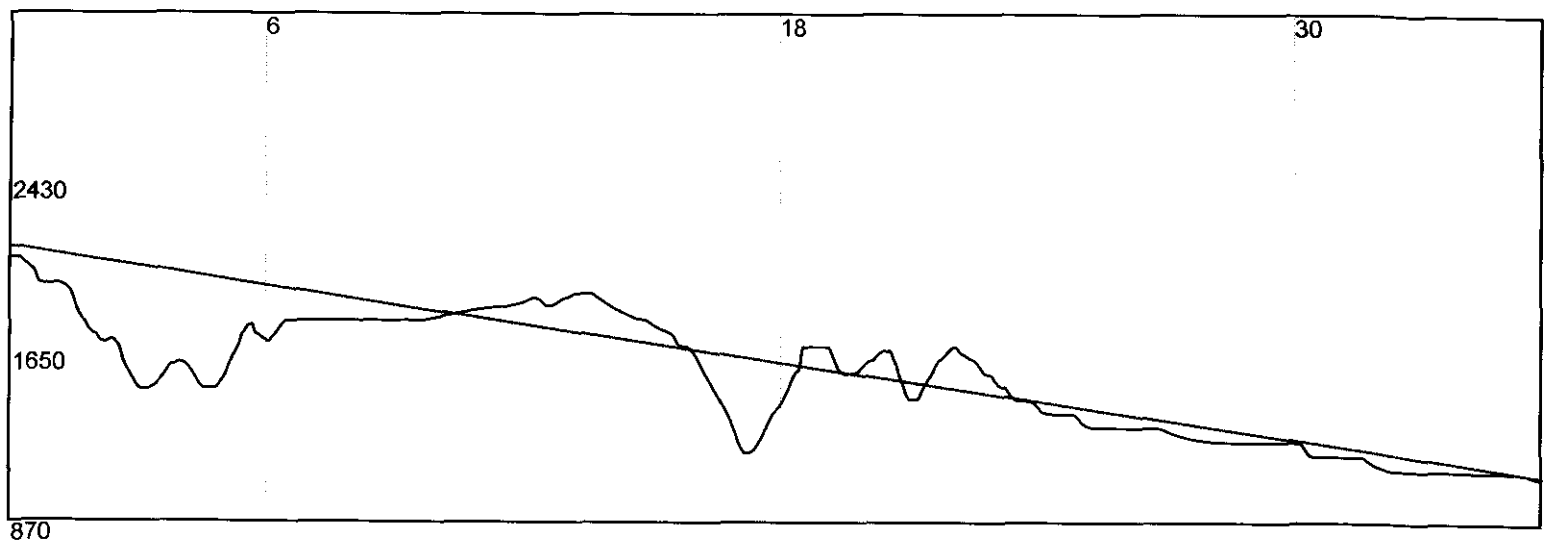
Callsign	Latitude	Longitude	City	State	Service	Channel	Class	Status	Min Sep	Clearance	ERP	HAAT	Adjacency	Distance	Bearing
KHUL	N37:17:45	W112:50:34	KANAB	UT	FM	266 : 101.1 MHz	C	LIC	95	15.34	100.00	600	2nd Adj	110.34	189
K269DN	N38:27:04	W112:39:05	BEAVER	UT	FM	269 : 101.7 MHz		LIC	0	19.36	0.05	308	1st Adj	19.36	357
K269BP	N38:32:31	W112:04:21	MONROE, ETC.	UT	FM	269 : 101.7 MHz		LIC	0	57.66	0.01	0	1st Adj	57.66	059
K214AJ	N38:31:14	W113:17:21	MILFORD, ETC.	UT	FM	214 : 90.7 MHz		LIC	0	62.80	0.04	1313	IF	62.80	296
K269DG	N37:40:00	W113:05:00	CEDAR CITY	UT	FM	269 : 101.7 MHz		LIC	0	78.13	0.07	-168	1st Adj	78.13	210
	N37:02:51	W112:31:32	KANAB	UT	FM	270 : 101.9 MHz	C2	ADD	55	81.83	0.00	0	2nd Adj	136.83	176
KPKK	N40:52:16	W110:59:43	OAKLEY	UT	FM	268 : 101.5 MHz	C	CP M	226	94.83	89.00	647	Primary	320.83	026

Callsign	Latitude	Longitude	City	State	Service	Channel	Class	Status	Min Sep	Clearance	ERP	HAAT	Adjacency	Distance	Bearing
	N38:37:21	W112:07:29	MONROE	UT	FM	257 : 99.3 MHz	C2	VAC	55	4.13	0.00	0	2nd Adj	59.13	050
KONY	N36:50:49	W113:29:28	ST. GEORGE	UT	FM	260 : 99.9 MHz	C	LIC	165	10.61	89.00	626	1st Adj	175.61	205
	N36:50:49	W113:29:28	ST. GEORGE	UT	FM	260 : 99.9 MHz	C	RSV	165	10.61	0.00	0	1st Adj	175.61	205
	N37:46:13	W111:36:04	ESCALANTE	UT	FM	262 : 100.3 MHz	C	ADD	95	12.18	0.00	0	3rd Adj	107.18	122
K257AG	N37:59:59	W112:28:50	PANGUITCH	UT	FM	257 : 99.3 MHz		LIC	0	33.81	0.08	0	2nd Adj	33.81	156
K258AA	N37:50:32	W112:58:10	PAROWAN	UT	FM	258 : 99.5 MHz		LIC	0	56.24	0.02	208	1st Adj	56.24	211
K261BP	N38:32:12	W112:04:22	RURAL PIUTE, ETC.	UT	FM	261 : 100.1 MHz		LIC	0	57.34	0.08	988	2nd Adj	57.34	060
K257BC	N38:51:56	W112:14:51	FILLMORE, ETC.	UT	FM	259 : 99.7 MHz		APP	0	73.76	0.08	0	Primary	73.76	028
K257BC	N38:51:56	W112:14:51	FILLMORE, ETC.	UT	FM	257 : 99.3 MHz		LIC	0	73.76	0.08	899	2nd Adj	73.76	028
K257AZ	N38:44:12	W112:00:49	RICHFIELD	UT	FM	257 : 99.3 MHz		LIC	0	74.78	0.08	15	2nd Adj	74.78	047
K257AZ	N38:44:13	W112:00:49	RICHFIELD	UT	FM	259 : 99.7 MHz		APP	0	74.80	0.08	0	Primary	74.80	047
K205BS	N37:38:25	W113:22:29	PAROWAN, ETC.	UT	FM	205 : 88.9 MHz		LIC	0	95.71	0.07	346	IF	95.71	222
KURR	N40:36:29	W112:09:33	BOUNTIFUL	UT	FM	258 : 99.5 MHz	C	LIC	165	97.10	39.00	900	1st Adj	262.10	009
K257AC	N38:17:00	W111:30:37	TEASDALE-TORREY	UT	FM	257 : 99.3 MHz		LIC	0	98.88	0.04	50	2nd Adj	98.88	090

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 4:06:00 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:25:46 / -111:30:13 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-6 TERRAIN PROFILE PLOT from LICENSED SITE of KAJM to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:25:46
Start Point Longitude: -111:30:13
Start Point AMSL: 2072.3 meters
Start Antenna AGL: 50 meters

Range: 35.6 km
Bearing: 311 degrees
Average Height: 1510.2 meters
Minimum Height: 1071.4 meters
Maximum Height: 2072.3 meters

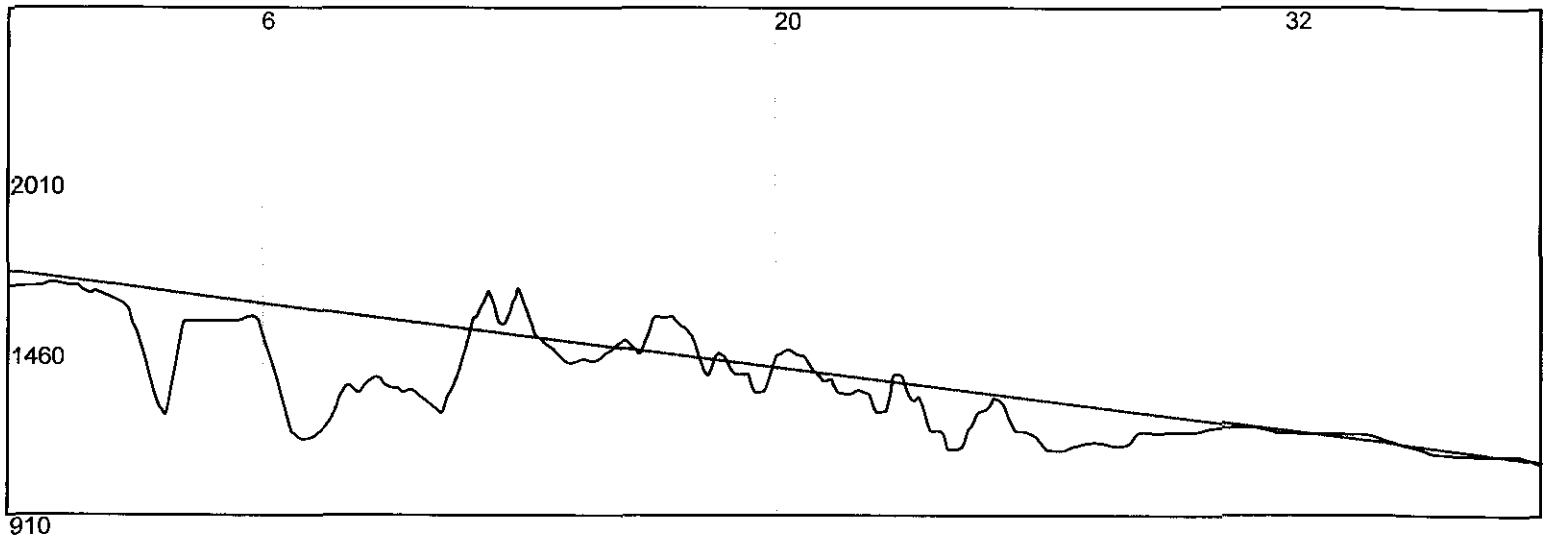
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

E-Curve: 1.000
Calculated Field Strength at End Point = 67.24dBu
Frequency: 104 MHz
Free Space Path Loss: 103.4 dB
Modeled Path Loss: 132.dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 4:15:52 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:20:04 / -111:35:32 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-7 TERRAIN PROFILE PLOT from SIERRA H REFERENCE SITE to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:20:04
Start Point Longitude: -111:35:32
Start Point AMSL: 1643.8 meters
Start Antenna AGL: 50 meters

Range: 38.7 km
Bearing: 331 degrees
Average Height: 1303.2 meters
Minimum Height: 1071.2 meters
Maximum Height: 1656.2 meters

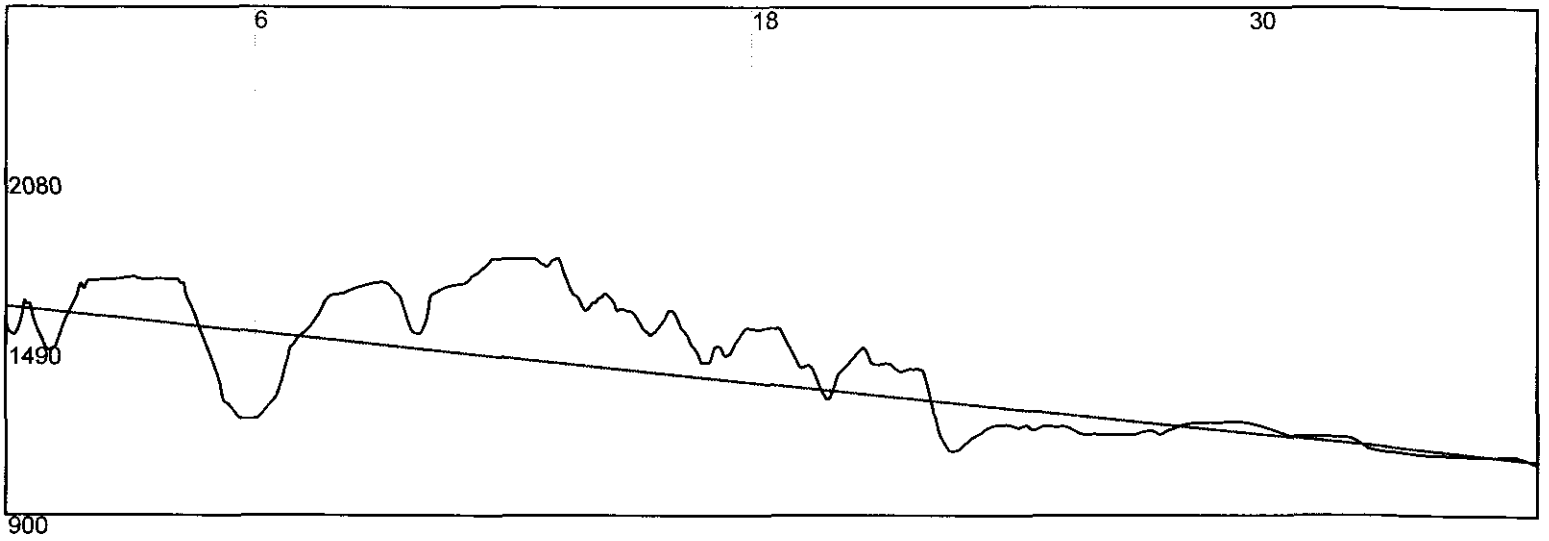
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.2 meters
End Antenna AGL: 9 meters

E-Curve: 1.333
Calculated Field Strength at End Point = 46.64dBu
Frequency: 104 MHz
Free Space Path Loss: 104.5 dB
Modeled Path Loss: 153.dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 4:26:31 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:21:56 / -111:34:24 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-8 TERRAIN PROFILE PLOT from NPR REFERENCE SITE to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:21:56
Start Point Longitude: -111:34:24
Start Point AMSL: 1568.7 meters
Start Antenna AGL: 50 meters

Range: 36.6 km
Bearing: 326 degrees
Average Height: 1393.9 meters
Minimum Height: 1071.3 meters
Maximum Height: 1768.3 meters

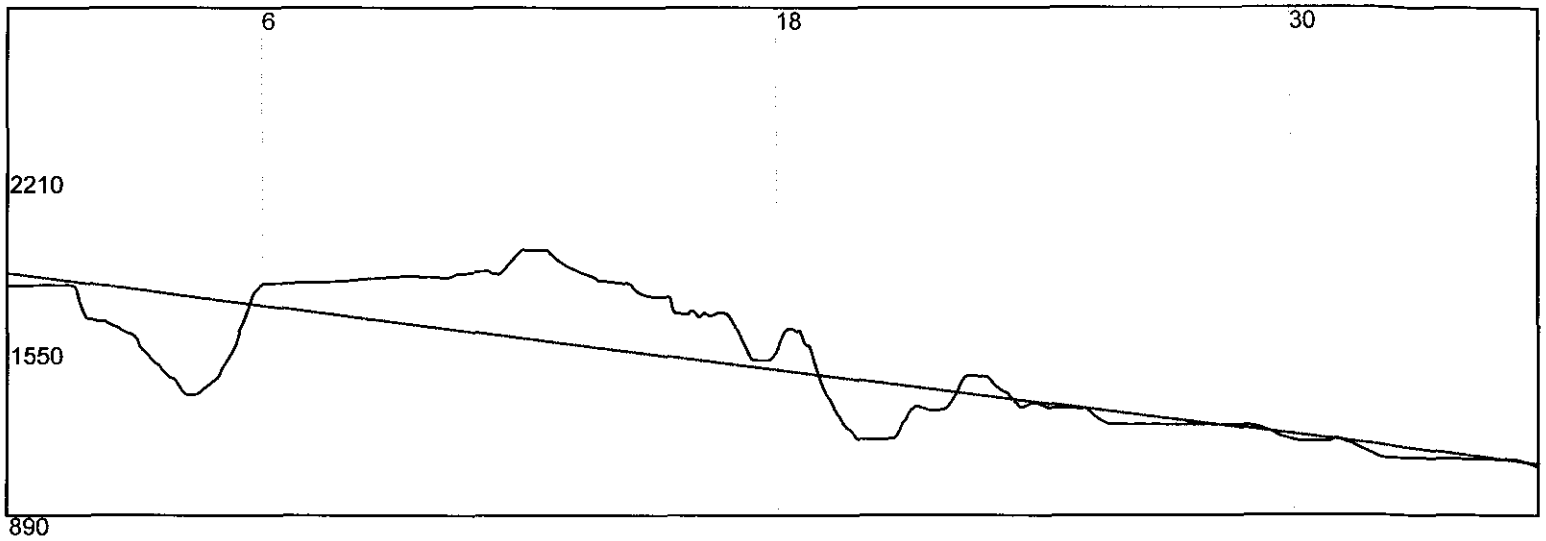
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.3 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 42.83dBu
Frequency: 104 MHz
Free Space Path Loss: 104. dB
Modeled Path Loss: 156.8dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 4:36:17 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:24:02 / -111:32:19 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-9 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #1 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:24:02
Start Point Longitude: -111:32:19
Start Point AMSL: 1766.9 meters
Start Antenna AGL: 50 meters

Range: 35.5 km
Bearing: 318 degrees
Average Height: 1461.8 meters
Minimum Height: 1071.3 meters
Maximum Height: 1890.9 meters

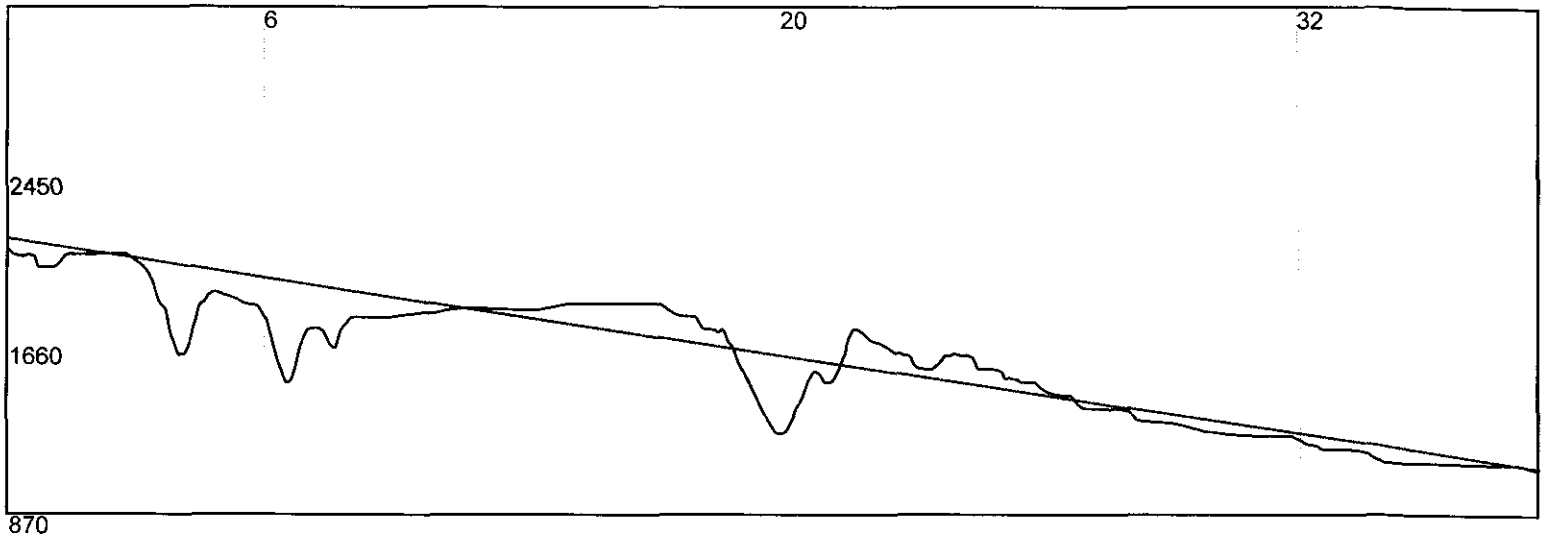
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.3 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 61.59dBu
Frequency: 104 MHz
Free Space Path Loss: 103.8 dB
Modeled Path Loss: 138.1dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 4:43:43 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:25:37 / -111:28:03 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-10 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #2 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:25:37
Start Point Longitude: -111:28:03
Start Point AMSL: 2098.9 meters
Start Antenna AGL: 50 meters

Range: 38.3 km
Bearing: 308 degrees
Average Height: 1562.9 meters
Minimum Height: 1071.4 meters
Maximum Height: 2098.9 meters

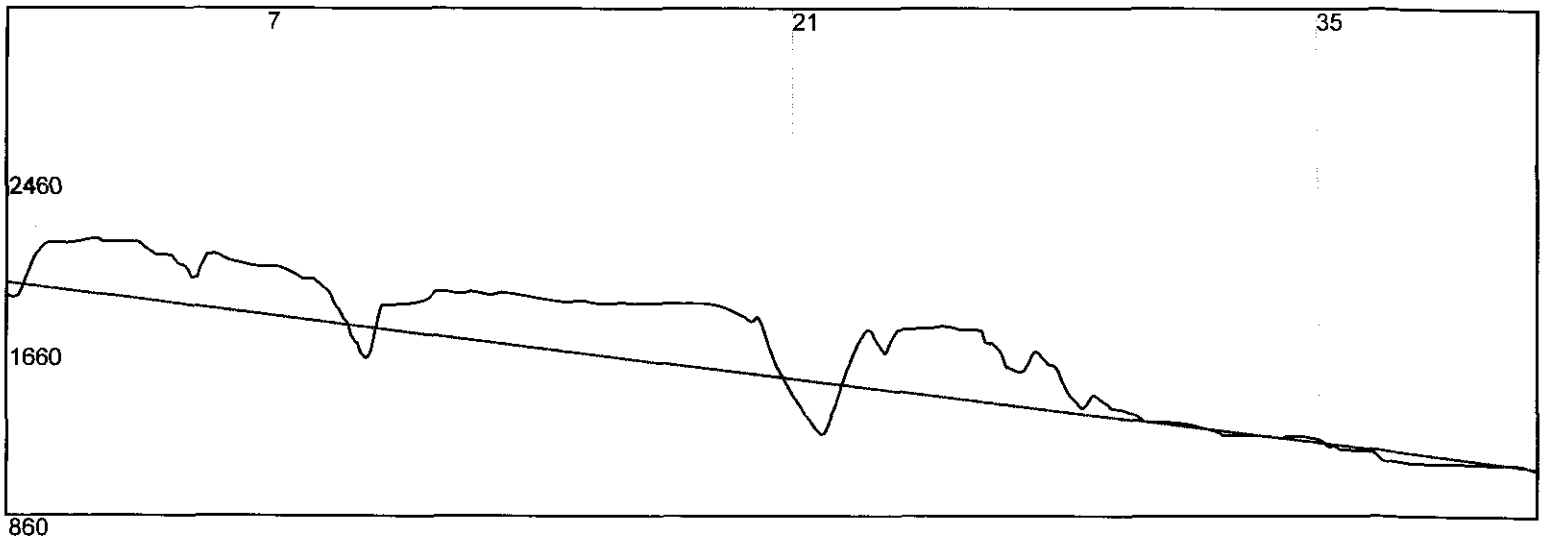
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 67.83dBu
Frequency: 104 MHz
Free Space Path Loss: 104.4 dB
Modeled Path Loss: 131.8dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 4:51:45 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:26:03 / -111:25:47 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-11 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #3 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:26:03
Start Point Longitude: -111:25:47
Start Point AMSL: 1898.5 meters
Start Antenna AGL: 50 meters

Range: 40.6 km
Bearing: 304 degrees
Average Height: 1632.4 meters
Minimum Height: 1071.4 meters
Maximum Height: 2151.9 meters

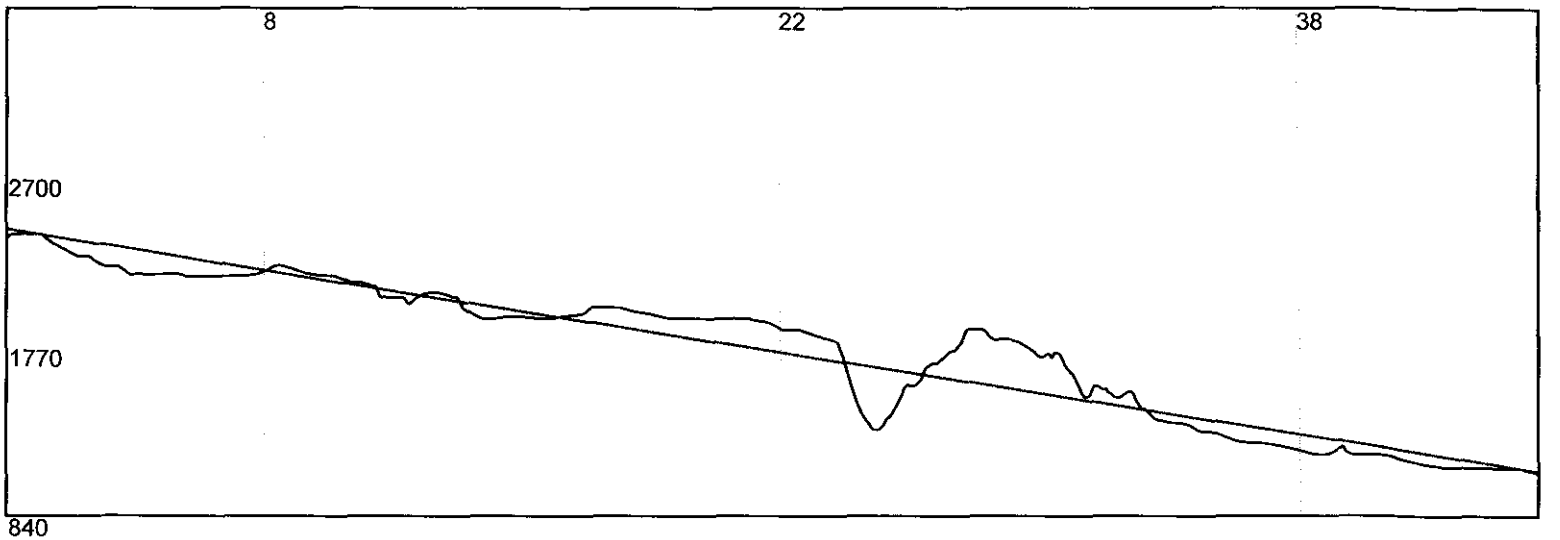
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 31.22dBu
Frequency: 104 MHz
Free Space Path Loss: 104.9 dB
Modeled Path Loss: 168.4dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 4:58:10 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:26:55 / -111:22:23 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-12 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #4 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:26:55
Start Point Longitude: -111:22:23
Start Point AMSL: 2355.5 meters
Start Antenna AGL: 50 meters

Range: 44.2 km
Bearing: 299 degrees
Average Height: 1730.0 meters
Minimum Height: 1071.4 meters
Maximum Height: 2377.3 meters

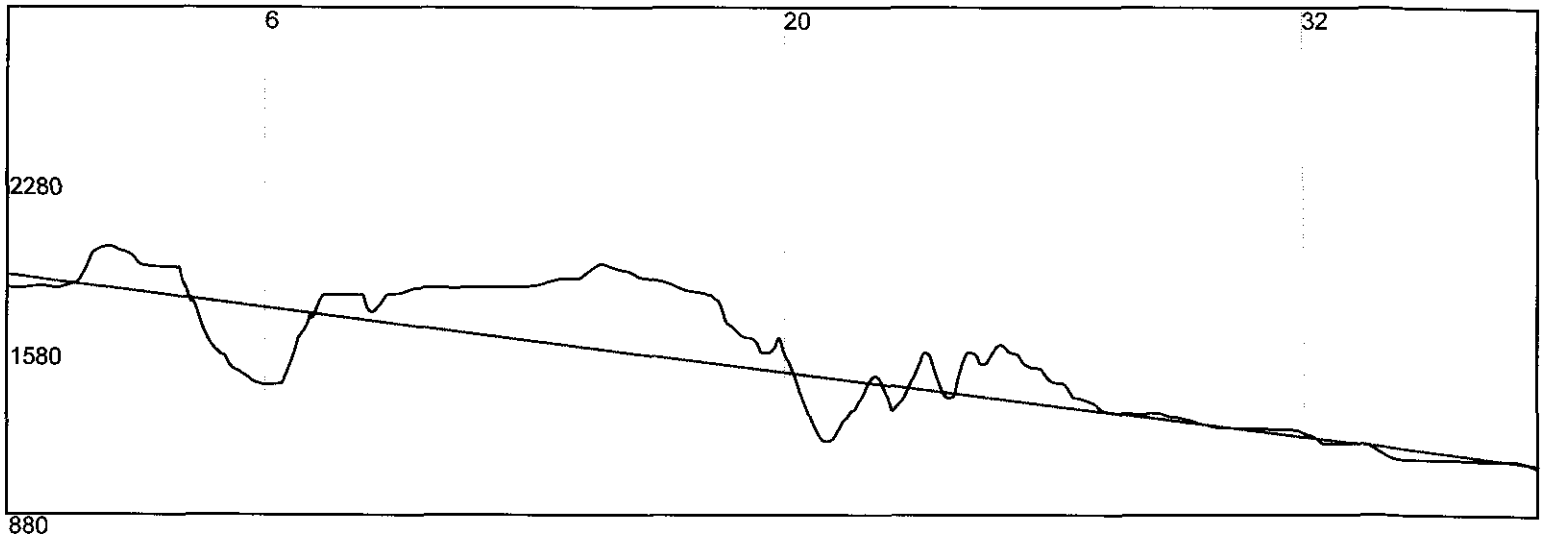
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 60.59dBu
Frequency: 104 MHz
Free Space Path Loss: 105.7 dB
Modeled Path Loss: 139.1dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 5:05:18 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:24:11 / -111:29:42 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-13 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #5 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:24:11
Start Point Longitude: -111:29:42
Start Point AMSL: 1815.2 meters
Start Antenna AGL: 50 meters

Range: 38.1 km
Bearing: 314 degrees
Average Height: 1516.7 meters
Minimum Height: 1071.4 meters
Maximum Height: 1976.0 meters

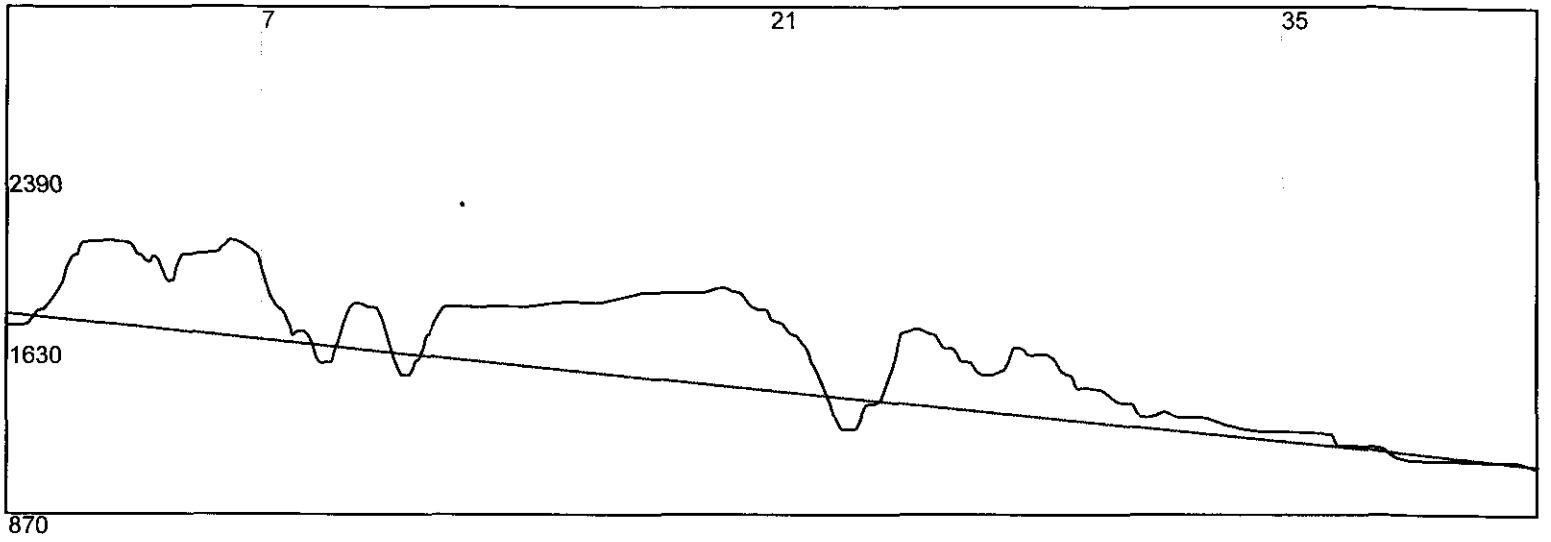
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 39.58dBu
Frequency: 104 MHz
Free Space Path Loss: 104.4 dB
Modeled Path Loss: 160.1dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 5:12:42 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:24:02 / -111:26:44 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-14 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #6 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:24:02
Start Point Longitude: -111:26:44
Start Point AMSL: 1707.9 meters
Start Antenna AGL: 50 meters

Range: 41.7 km
Bearing: 310 degrees
Average Height: 1574.7 meters
Minimum Height: 1071.4 meters
Maximum Height: 2078.9 meters

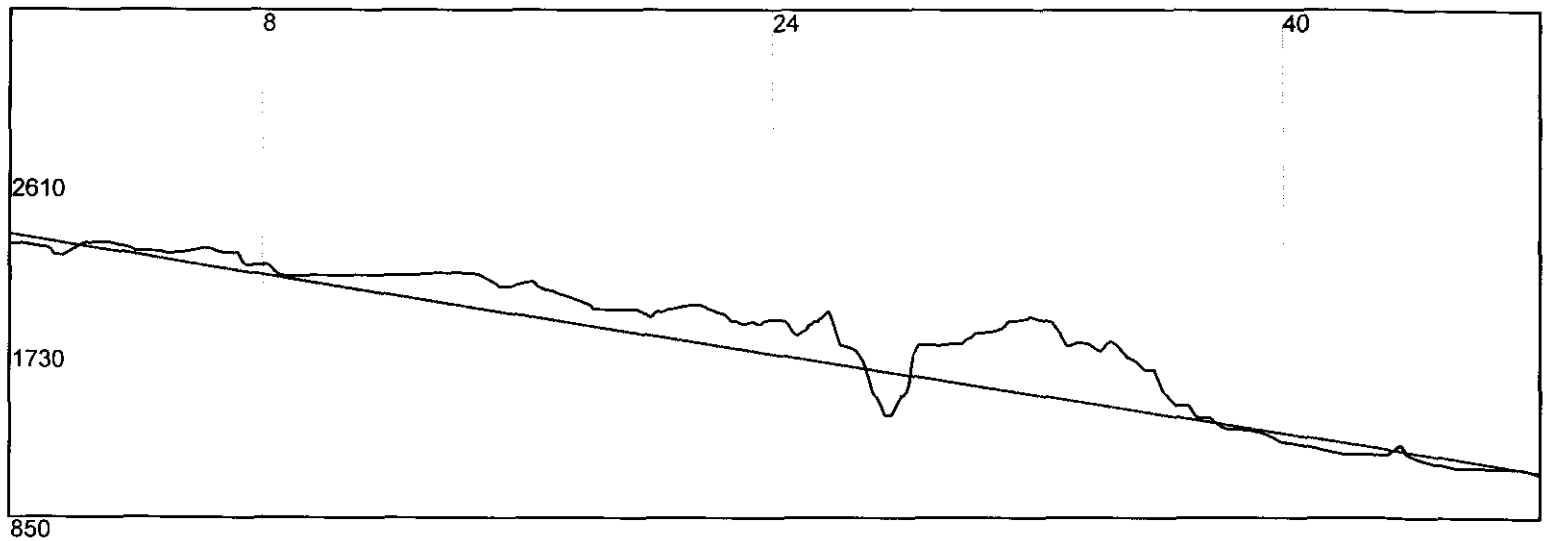
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End point = 28.29dBu
Frequency: 104 MHz
Free Space Path Loss: 105.1 dB
Modeled Path Loss: 171.3dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 5:19:50 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:27:34 / -111:19:25 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-15 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #7 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:27:34
Start Point Longitude: -111:19:25
Start Point AMSL: 2255.5 meters
Start Antenna AGL: 50 meters

Range: 47.7 km
Bearing: 295 degrees
Average Height: 1761.2 meters
Minimum Height: 1071.4 meters
Maximum Height: 2256.4 meters

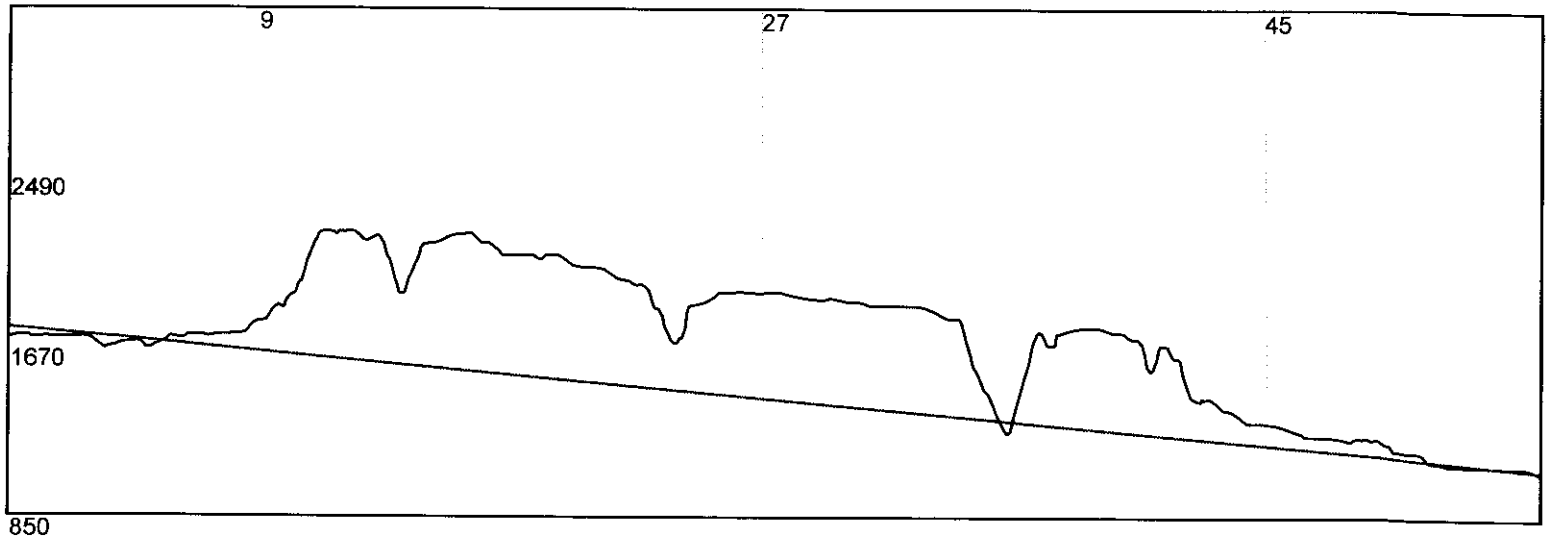
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 47.13dBu
Frequency: 104 MHz
Free Space Path Loss: 106.3 dB
Modeled Path Loss: 152.5dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 5:26:01 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:22:05 / -111:18:02 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-16 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #8 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:22:05
Start Point Longitude: -111:18:02
Start Point AMSL: 1709.0 meters
Start Antenna AGL: 50 meters

Range: 54.6 km
Bearing: 304 degrees
Average Height: 1688.0 meters
Minimum Height: 1071.4 meters
Maximum Height: 2194.7 meters

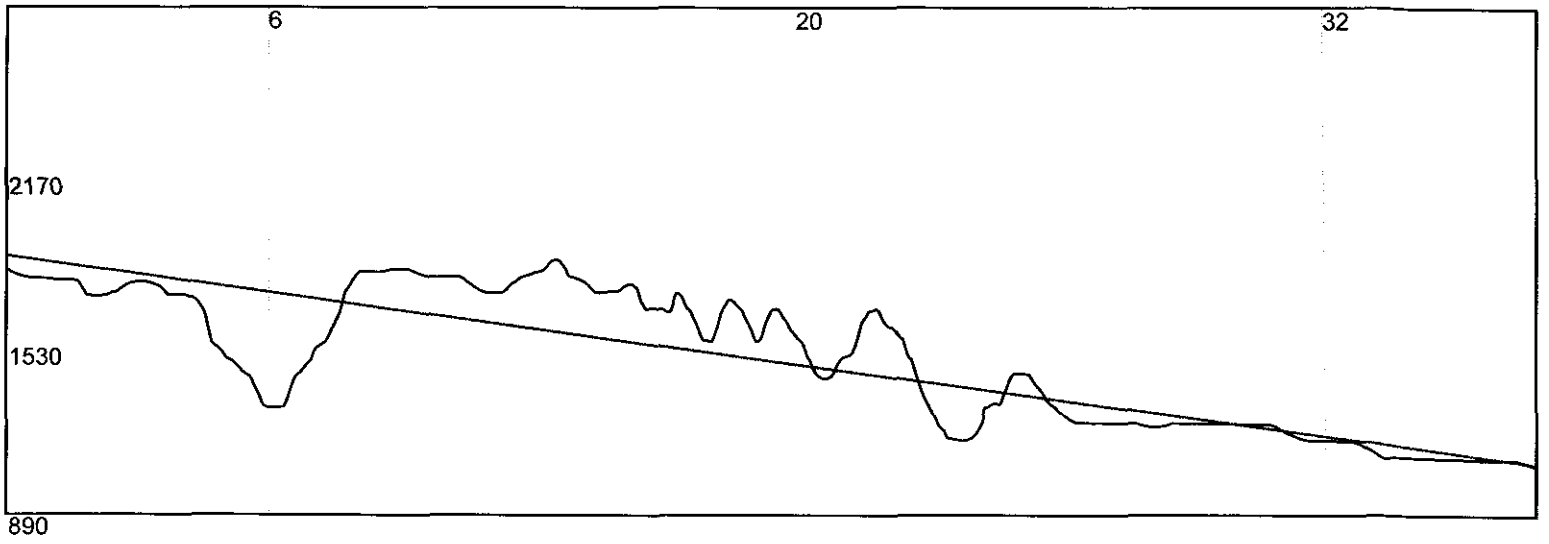
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 24.36dBu
Frequency: 104 MHz
Free Space Path Loss: 107.5 dB
Modeled Path Loss: 175.3dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 5:35:35 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:22:26 / -111:32:34 to +034:38:23 / -111:47:45 NAD-27



Description: EXHIBIT E-17 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #9 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:22:26
Start Point Longitude: -111:32:34
Start Point AMSL: 1812.1 meters
Start Antenna AGL: 50 meters

End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.4 meters
End Antenna AGL: 9 meters

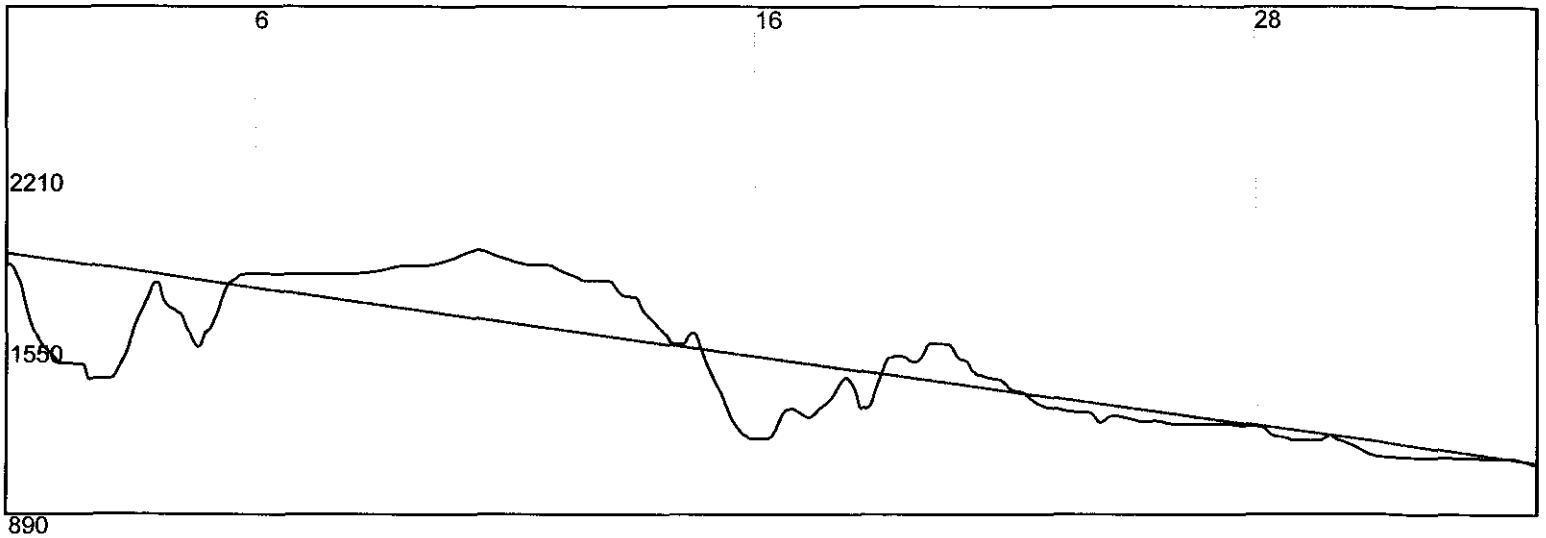
Range: 37.5 km
Bearing: 322 degrees
Average Height: 1464.7 meters
Minimum Height: 1071.4 meters
Maximum Height: 1828.7 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 52.32dBu
Frequency: 104 MHz
Free Space Path Loss: 104.2 dB
Modeled Path Loss: 147.3dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 5:42:17 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:25:37 / -111:32:14 to +034:38:23 / -111:47:45 NAD-27



Description: EXHIBIT E-18 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #10 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:25:37
Start Point Longitude: -111:32:14
Start Point AMSL: 1838.6 meters
Start Antenna AGL: 50 meters

Range: 33.5 km
Bearing: 315 degrees
Average Height: 1460.0 meters
Minimum Height: 1071.5 meters
Maximum Height: 1887.1 meters

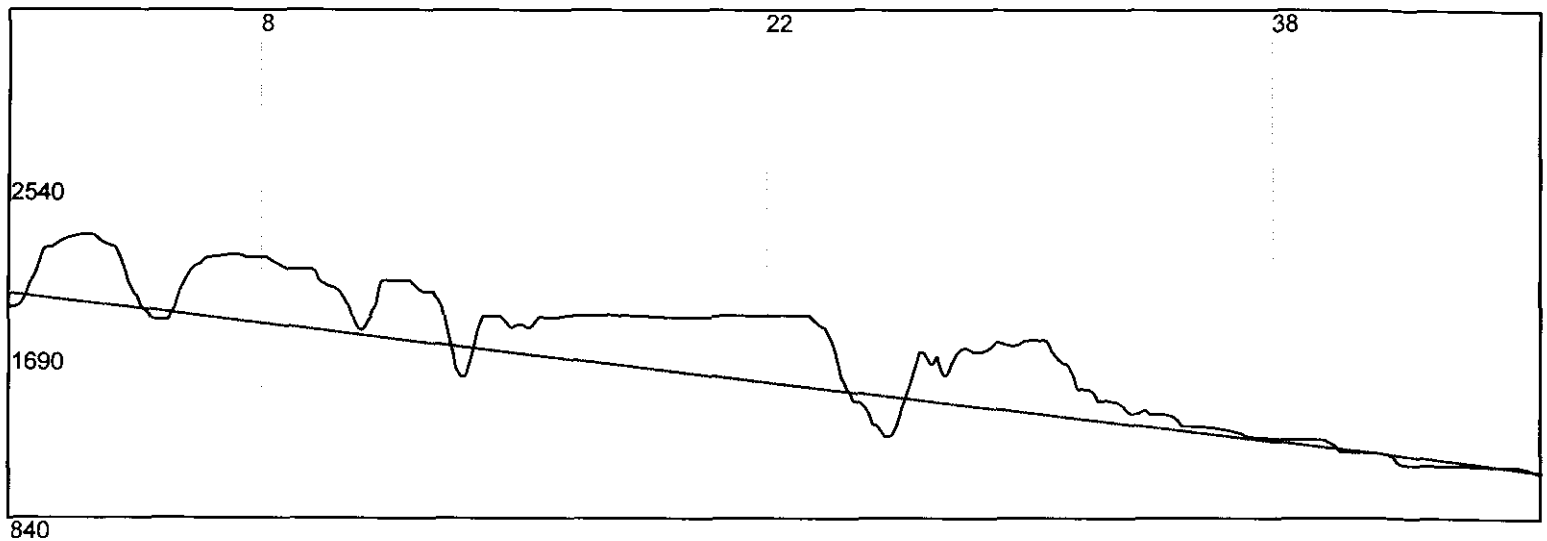
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.5 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 67.79dBu
Frequency: 104 MHz
Free Space Path Loss: 103.2 dB
Modeled Path Loss: 136.6dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 6:02:50 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:24:11 / -111:23:52 to +034:38:24 / -111:47:50 NAD-27



Description: EXHIBIT E-19 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #11 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:24:11
Start Point Longitude: -111:23:52
Start Point AMSL: 1918.1 meters
Start Antenna AGL: 50 meters

Range: 45.0 km
Bearing: 306 degrees
Average Height: 1655.5 meters
Minimum Height: 1064.9 meters
Maximum Height: 2256.2 meters

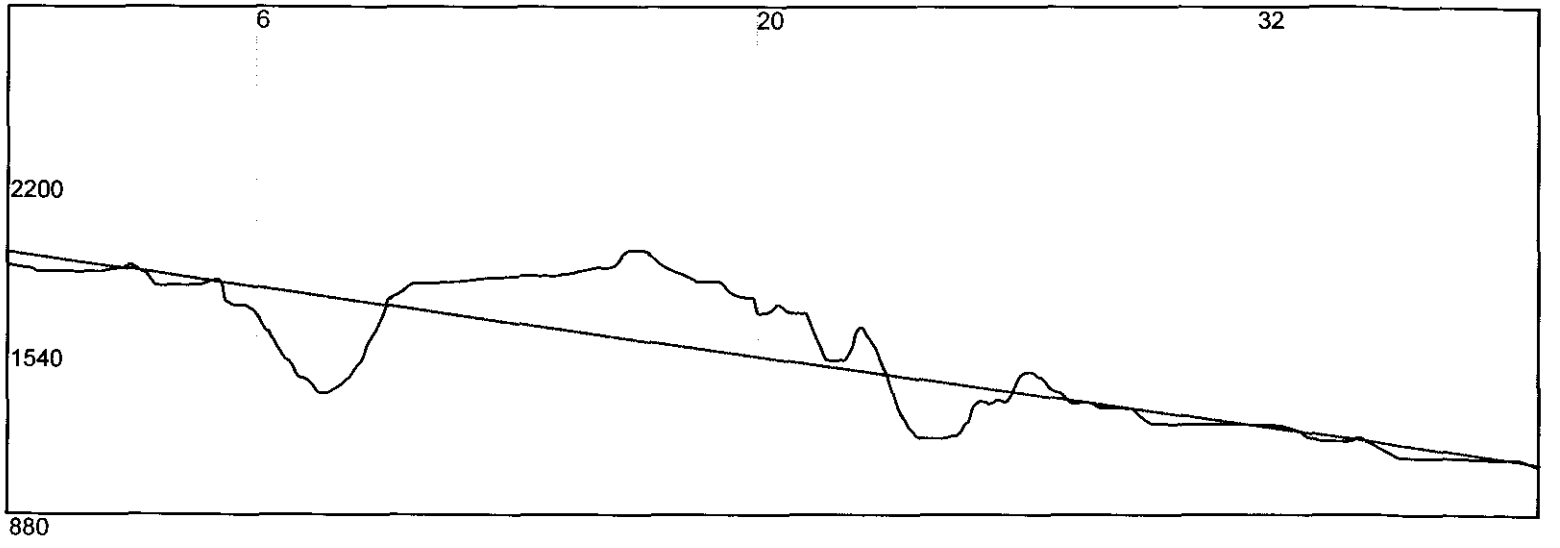
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1064.9 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 20.14dBu
Frequency: 104 MHz
Free Space Path Loss: 105.7 dB
Modeled Path Loss: 179.4dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 6:10:05 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:22:31 / -111:30:29 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-20 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #12 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:22:31
Start Point Longitude: -111:30:29
Start Point AMSL: 1856.1 meters
Start Antenna AGL: 50 meters

Range: 39.5 km
Bearing: 318 degrees
Average Height: 1498.0 meters
Minimum Height: 1071.6 meters
Maximum Height: 1890.0 meters

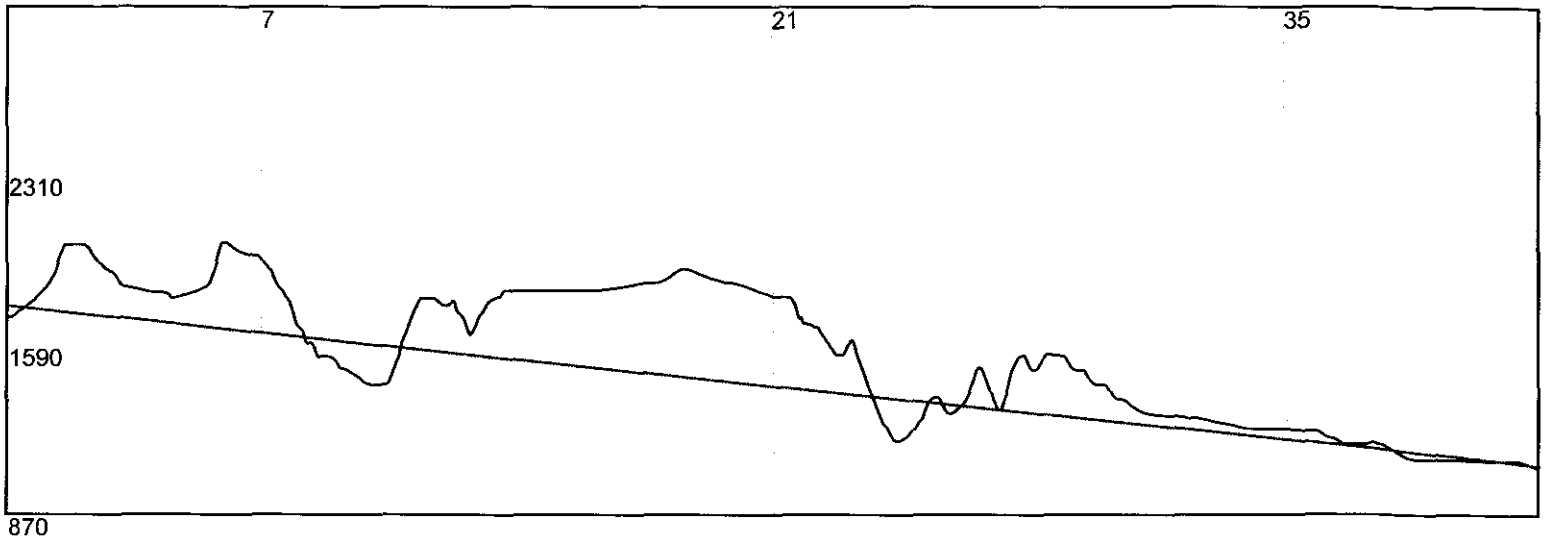
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.6 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 57.87dBu
Frequency: 104 MHz
Free Space Path Loss: 104.7 dB
Modeled Path Loss: 141.8dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 6:16:15 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:22:40 / -111:28:13 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-21 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #13 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:22:40
Start Point Longitude: -111:28:13
Start Point AMSL: 1704.2 meters
Start Antenna AGL: 50 meters

End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.7 meters
End Antenna AGL: 9 meters

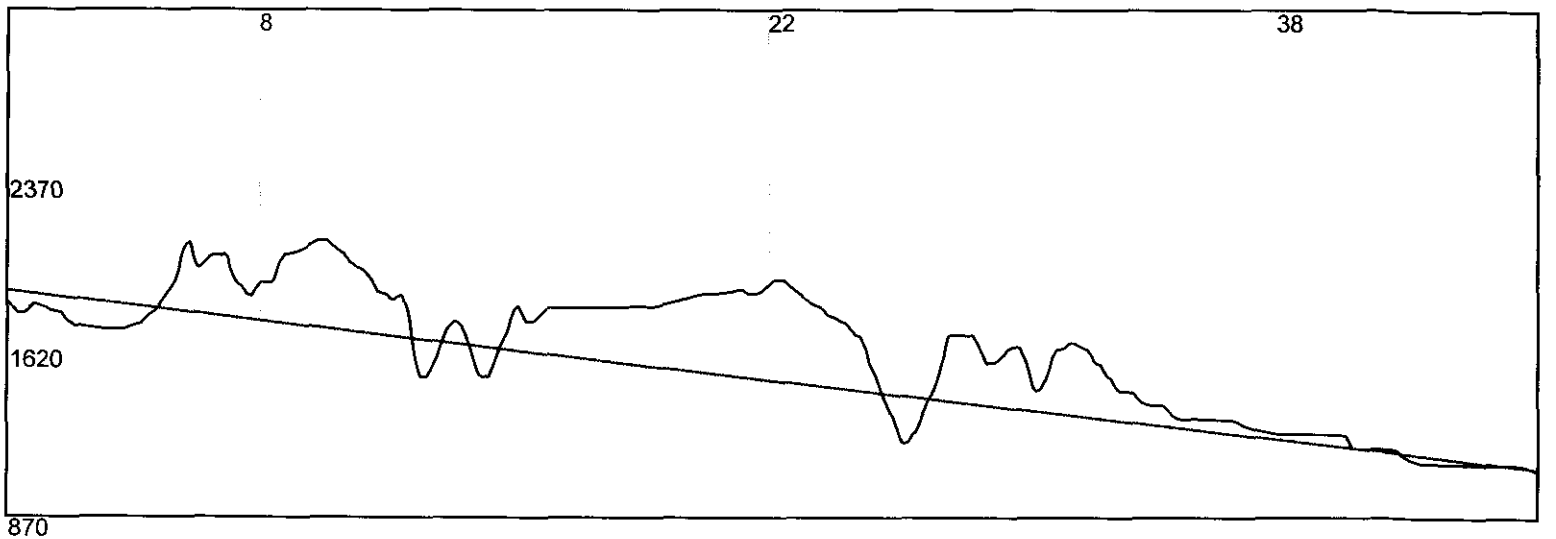
Range: 41.7 km
Bearing: 314 degrees
Average Height: 1539.8 meters
Minimum Height: 1071.7 meters
Maximum Height: 2011.7 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 20.09dBu
Frequency: 104 MHz
Free Space Path Loss: 105.1 dB
Modeled Path Loss: 179.5dB

Klein Broadcast Engineering, L.L.C.

Date: 9/8/2002 6:21:23 PM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:22:35 / -111:25:31 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-22 TERRAIN PROFILE PLOT from NPR SAMPLE REF SITE #14 to LAKE MONTEZUMA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:22:35
Start Point Longitude: -111:25:31
Start Point AMSL: 1818.9 meters
Start Antenna AGL: 50 meters

End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.7 meters
End Antenna AGL: 9 meters

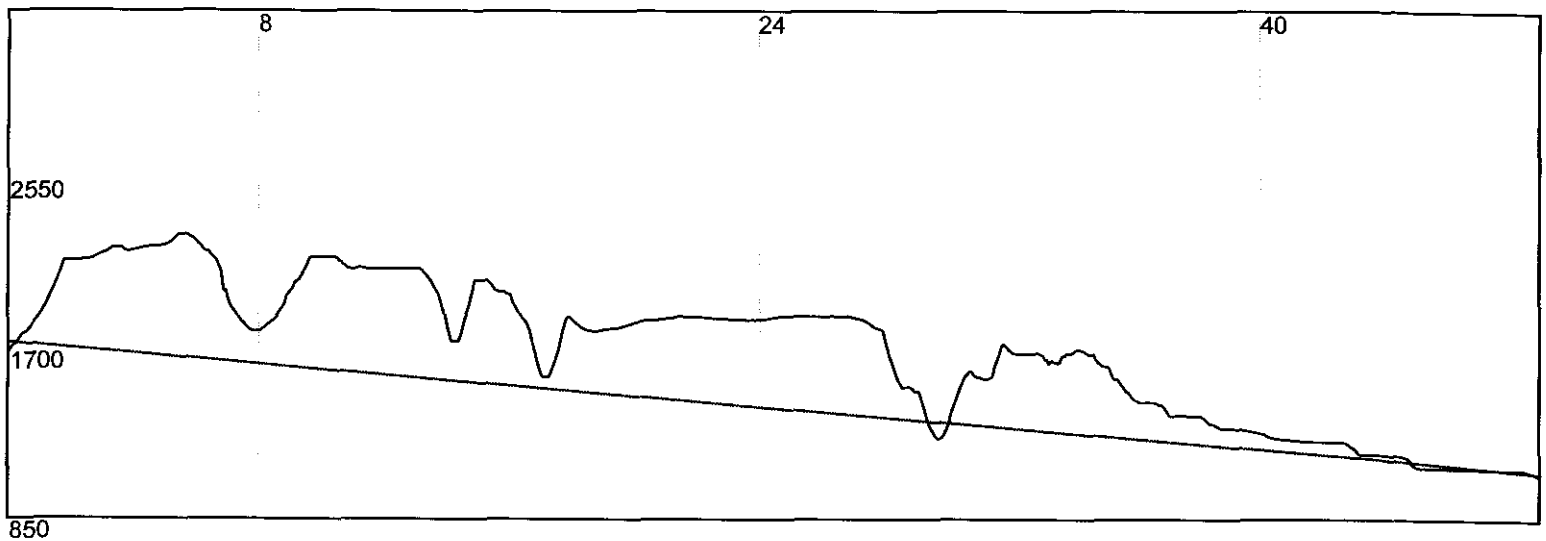
Range: 44.8 km
Bearing: 311 degrees
Average Height: 1585.4 meters
Minimum Height: 1071.7 meters
Maximum Height: 2072.7 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 35.77dBu
Frequency: 104 MHz
Free Space Path Loss: 105.8 dB
Modeled Path Loss: 163.9dB

Klein Broadcast Engineering, L.L.C.

Date: 9/9/2002 6:47:19 AM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:22:40 / -111:22:18 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-23 TERRAIN PROFILE PLOT from NPR SAMPLE SITE #15 to LAKE MONTEZUMA, ARIZONA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:22:40
Start Point Longitude: -111:22:18
Start Point AMSL: 1678.2 meters
Start Antenna AGL: 50 meters

Range: 48.6 km
Bearing: 307 degrees
Average Height: 1675.8 meters
Minimum Height: 1071.7 meters
Maximum Height: 2255.0 meters

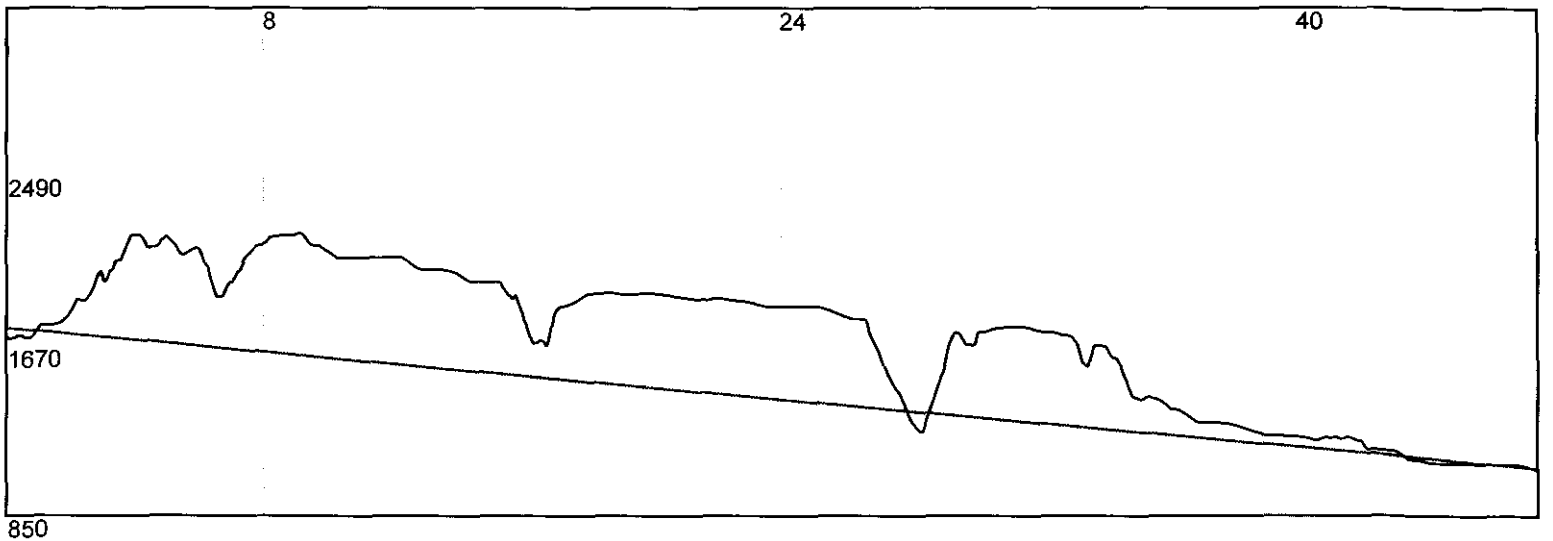
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.7 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 7.76dBu
Frequency: 104 MHz
Free Space Path Loss: 106.5 dB
Modeled Path Loss: 191.9dB

Klein Broadcast Engineering, L.L.C.

Date: 9/9/2002 6:54:52 AM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:24:24 / -111:22:02 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-24 TERRAIN PROFILE PLOT from NPR SAMPLE SITE #16 to LAKE MONTEZUMA, ARIZONA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:24:24
Start Point Longitude: -111:22:02
Start Point AMSL: 1706.8 meters
Start Antenna AGL: 50 meters

Range: 47.1 km
Bearing: 303 degrees
Average Height: 1688.7 meters
Minimum Height: 1071.7 meters
Maximum Height: 2194.0 meters

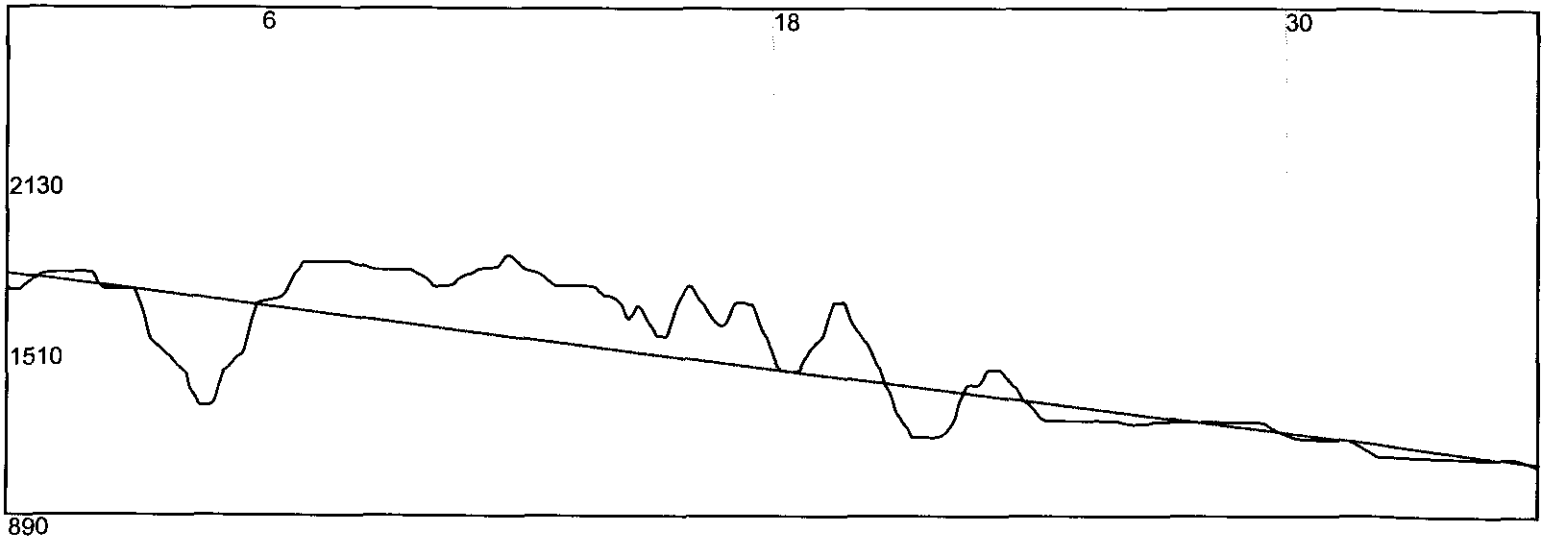
End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.7 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 25.74dBu
Frequency: 104 MHz
Free Space Path Loss: 106.2 dB
Modeled Path Loss: 173.9dB

Klein Broadcast Engineering, L.L.C.

Date: 9/9/2002 7:02:31 AM
DMA 3 Arc Second Terrain Data

Terrain Profile from +034:23:19 / -111:33:11 to +034:38:24 / -111:47:45 NAD-27



Description: EXHIBIT E-25 TERRAIN PROFILE PLOT from NPR SAMPLE SITE #17 to LAKE MONTEZUMA, ARIZONA with PATH LOSS CALCULATIONS

Start Point Latitude: +034:23:19
Start Point Longitude: -111:33:11
Start Point AMSL: 1718.1 meters
Start Antenna AGL: 50 meters

Range: 35.7 km
Bearing: 321 degrees
Average Height: 1452.4 meters
Minimum Height: 1071.6 meters
Maximum Height: 1819.3 meters

End Point Latitude: +034:38:24
End Point Longitude: -111:47:45
End Point AMSL: 1071.6 meters
End Antenna AGL: 9 meters

E-Curve: 1.330
Calculated Field Strength at End Point = 40.05dBu
Frequency: 104 MHz
Free Space Path Loss: 103.8 dB
Modeled Path Loss: 159.6dB